

estimated for each mouse by measuring in two directions using Vernier calipers, and was calculated as tumor volume=length \times (width)²/2. These results indicate that expression of *FEZ1* inhibited proliferation of MCF7 cells *in vivo*, and indicate that *FEZ1* expression inhibits (or even reverses) proliferation of epithelial tumor cells in animals. The results of these experiments are presented in Figure 9. --

In the Drawings:

Please substitute new formal drawing sheets 1-80 (enclosed with a Transmittal of Formal Drawings) in place of the 22 sheets of drawings originally filed with the application. A marked-up copy of Figure 23 is enclosed, on which two changes (i.e., a spelling correction and addition of an axis label) made to this drawing are indicated.

In the Claims:

Please cancel non-elected claims 27, 30, 34-36, 41-43, 45, 47-58, 63-66, 68, 73-75, 84, 86, 87, 92, and 93, without prejudice to the filing of claims encompassing the same subject matter in one or more additional patent applications.

Please also cancel claims 1-22, 25, 67, 90, 91, and 94-97.

Please add new claims 100-144 as follows.

-- 100. An isolated polynucleotide having a sequence comprising at least twenty consecutive nucleotide residues of a portion of a strand of SEQ ID NO: 1, wherein the portion includes a residue selected from the group consisting of residues 1 to 423, residues 871 to 4343, residues 4365 to 4419, residues 4451 to 4473, residues 4514 to 6917, residues 6939 and 7633, and residues 7806 to 8520 of SEQ ID NO: 1.

101. The polynucleotide of claim 100, wherein the sequence comprises at least fifty consecutive residues of SEQ ID NO: 1.

cy

102. The polynucleotide of claim 100, wherein the sequence comprises at least one hundred consecutive residues of SEQ ID NO: 1.

103. The polynucleotide of claim 100, wherein the sequence comprises residues 112-456, 1707-2510, and 4912-5550 of SEQ ID NO: 1.

104. The polynucleotide of claim 100, wherein the sequence comprises a strand of SEQ ID NO: 3.

105. The polynucleotide of claim 104, wherein the polynucleotide further comprises a promoter operably linked with SEQ ID NO: 3.

106. The polynucleotide of claim 105, wherein the promoter is a constitutive promoter.

*B15
Cnold*

107. The polynucleotide of claim 105, wherein the promoter is an inducible promoter.

108. The polynucleotide of claim 105, wherein the promoter is a tissue-specific promoter.

109. The polynucleotide of claim 105, wherein the polynucleotide is incorporated in a nucleic acid vector.

110. The polynucleotide of claim 100, wherein the polynucleotide is incorporated in a nucleic acid vector.

111. The polynucleotide of claim 100, wherein the polynucleotide is detectably labeled.

Sub Q5
112. The polynucleotide of claim 111, wherein the detectably-labeled polynucleotide is selected from the group consisting of an immobilized polynucleotide, a polynucleotide linked to a protein of a protein-ligand pair, a polynucleotide linked to a ligand of a protein-ligand pair, a biotinylated polynucleotide, a polynucleotide linked to an enzyme, and a radio-labeled polynucleotide.

113. The polynucleotide of claim 112, wherein the detectably-labeled polynucleotide is an immobilized polynucleotide immobilized on the surface of a gene chip.

B15 Cont
114. The polynucleotide of claim 100, wherein the polynucleotide is substantially purified.

115. The polynucleotide of claim 100, wherein at least two nucleotide residues of the polynucleotide are linked by a non-naturally occurring linkage.

116. The polynucleotide of claim 115, wherein the non-naturally occurring linkage is selected from the group consisting of phosphonate, phosphorothioate, phosphorodithioate, phosphoramidate methoxyethyl phosphoramidate, formacetal, thioformacetal, diisopropylsilyl, acetamidate, carbamate, dimethylene-sulfide ($-\text{CH}_2-\text{S}-\text{CH}_2-$), dimethylene-sulfoxide ($-\text{CH}_2-\text{SO}-\text{CH}_2-$), dimethylene-sulfone ($-\text{CH}_2-\text{SO}_2-\text{CH}_2-$), 2'-O-alkyl, and 2'-deoxy-2'-fluoro phosphorothioate, phosphotriester, siloxane, carbonate, carboxymethyl ester, acetamidate, thioether, bridged phosphoramidate, bridged methylene phosphonate, bridged phosphoramidate, bridged phosphorothioate, bridged methylene phosphonate, phosphorothioate, methylphosphonate, phosphorodithioate, bridged phosphorothioate, and bridged sulfone linkages.

117. The polynucleotide of claim 100, wherein an end of the polynucleotide is nucleolytically blocked.

118. A pharmaceutical composition comprising an isolated polynucleotide of claim 100 and a pharmaceutically acceptable carrier.

119. A pharmaceutical composition comprising an isolated polynucleotide of claim 103 and a pharmaceutically acceptable carrier.

120. An animal cell comprising an exogenous isolated polynucleotide of claim 100.

121. An animal cell comprising an exogenous isolated polynucleotide of claim 103.

122. A kit for amplifying a portion of a human *FEZ1* gene, the kit comprising an isolated polynucleotide of claim 100 and a second polynucleotide that is homologous with a portion of the opposite strand of SEQ ID NO: 1.

123. An isolated polynucleotide having a sequence that is substantially homologous with twenty consecutive nucleotide residues of a portion of at least one strand of SEQ ID NO: 1, wherein the portion is selected from the group consisting of residues 1 to 423, residues 871 to 4343, residues 4365 to 4419, residues 4451 to 4473, residues 4514 to 6917, residues 6939 and 7633, and residues 7806 to 8520 of SEQ ID NO: 1.

124. The polynucleotide of claim 123, wherein the sequence is substantially homologous with fifty consecutive residues of the portion.

125. The polynucleotide of claim 123, wherein the sequence is substantially homologous with one hundred consecutive residues of the portion.

126. The polynucleotide of claim 123, wherein the sequence comprises residues 112-456, 1707-2510, and 4912-5550 of SEQ ID NO: 1.

127. The polynucleotide of claim 123, wherein the sequence comprises a strand of SEQ ID NO: 3.

128. The polynucleotide of claim 127, wherein the polynucleotide further comprises a promoter operably linked with SEQ ID NO: 3.

129. The polynucleotide of claim 128, wherein the promoter is a constitutive promoter.

130. The polynucleotide of claim 128, wherein the promoter is an inducible promoter.

131. The polynucleotide of claim 128, wherein the promoter is a tissue-specific promoter.

132. The polynucleotide of claim 128, wherein the polynucleotide is incorporated in a nucleic acid vector.

133. The polynucleotide of claim 123, wherein the polynucleotide is incorporated in a nucleic acid vector.

134. The polynucleotide of claim 123, wherein the polynucleotide is detectably labeled.

135. The polynucleotide of claim 134, wherein the detectably-labeled polynucleotide is selected from the group consisting of an immobilized polynucleotide, a

polynucleotide linked to a protein of a protein-ligand pair, a polynucleotide linked to a ligand of a protein-ligand pair, a biotinylated polynucleotide, a polynucleotide linked to an enzyme, and a radio-labeled polynucleotide.

C7
lower

136. The polynucleotide of claim 135, wherein the detectably-labeled polynucleotide is an immobilized polynucleotide immobilized on the surface of a gene chip.

137. The polynucleotide of claim 123, wherein the polynucleotide is substantially purified.

138. The polynucleotide of claim 123, wherein at least two nucleotide residues of the polynucleotide are linked by a non-naturally occurring linkage.

BIS
Ant

139. The polynucleotide of claim 138, wherein the non-naturally occurring linkage is selected from the group consisting of phosphonate, phosphorothioate, phosphorodithioate, phosphoramidate methoxyethyl phosphoramidate, formacetal, thioformacetal, diisopropylsilyl, acetamidate, carbamate, dimethylene-sulfide ($-\text{CH}_2-\text{S}-\text{CH}_2-$), dimethylene-sulfoxide ($-\text{CH}_2-\text{SO}-\text{CH}_2-$), dimethylene-sulfone ($-\text{CH}_2-\text{SO}_2-\text{CH}_2-$), 2'-O-alkyl, and 2'-deoxy-2'-fluoro phosphorothioate, phosphotriester, siloxane, carbonate, carboxymethyl ester, acetamidate, thioether, bridged phosphoramidate, bridged methylene phosphonate, bridged phosphoramidate, bridged phosphorothioate, bridged methylene phosphonate, phosphorothioate, methylphosphonate, phosphorodithioate, bridged phosphorothioate, and bridged sulfone linkages.

Sub 28

140. The polynucleotide of claim 123, wherein an end of the polynucleotide is nucleolytically blocked.

141. A pharmaceutical composition comprising an isolated polynucleotide of claim 123 and a pharmaceutically acceptable carrier.